

# Introducing Mobilgrease 33

**ExxonMobil**  
Aviation Lubricants

## Introduction

Mobilgrease 33 from ExxonMobil is a new multi-purpose airframe grease. Our researchers developed the formulation to meet performance requirements from Boeing, Airbus, SAE and the U.S. military. It is made with unique synthetic base oil, lithium complex thickener and premium additives to provide excellent corrosion and wear resistance, and operability at very low temperatures.

## Patent-pending technology

What makes Mobilgrease 33 fundamentally different from other low-temperature airframe greases is the base oil. It contains no esters and is 100 percent polyalphaolefin (PAO). Esters are compounds that are susceptible to hydrolysis, which is a chemical reaction with water causing decomposition and leading to the likely production of potentially corrosive acids. A patent for the base oil technology has been applied for by ExxonMobil and is pending.

- Unlike airframe greases containing esters, our product's 100 percent PAO base oil will resist decomposition when contaminated with water.
- Mobilgrease 33's superior hydrolytic stability can provide a higher level of protection for airframe components operating in hot and wet environments.

## Approved, Meets

Mobilgrease 33 is:

- approved against BMS 3-33B and included in the Boeing Qualified Products List (QPL).
- approved against AIMS 09-06-002 and included in the Airbus QPL.
- approved against MIL-PRF-23827C, Type I, and included in the U.S. Navy QPL.
- meets SAE AMS3052 requirements.



*To test Mobilgrease 33's hydrolytic stability, ExxonMobil researchers added 10 percent water to it and a competitor's BMS 3-33 qualified grease, and stored both at 121°C for seven days. Esters in the competitive grease hydrolyzed causing it to decompose. This changed its color, texture and firmness. Mobilgrease 33 remained stable.*

**Mobilgrease 33's 100 percent PAO base oil eliminates the need for esters which hydrolyze when contaminated with water and can lead to wear or corrosion.**

## What Mobilgrease 33 can do and what it will not

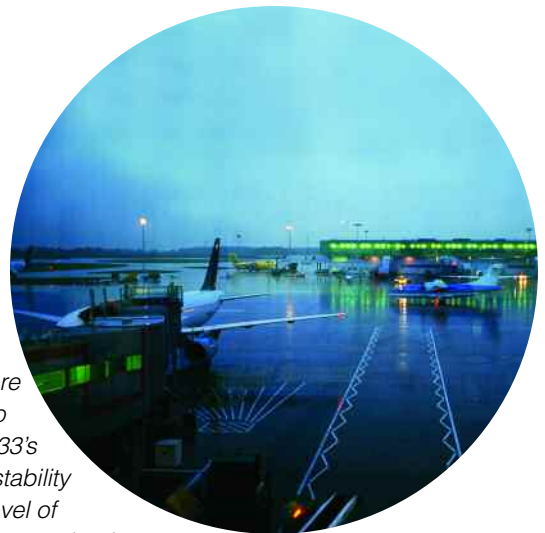
### *Mobilgrease 33 can:*

- protect airframe components and mechanisms against corrosion and wear.
- offer a higher margin of protection in hot and wet environments than airframe greases containing esters.
- increase the potential for extending the life of airframe components and mechanisms.
- allow you to consolidate the number of greases you use.

### *Mobilgrease 33 will not:*

- be susceptible to hydrolysis when contaminated with water, as are greases with esters.

*A significant number of airframe components and mechanisms have grease points that are regularly exposed to water. Mobilgrease 33's superior hydrolytic stability provides a higher level of protection for those operating in hot and wet environments.*



## Making routine lubrication easier

Hundreds of components and mechanisms in the airframes of commercial aircraft must be lubricated to work properly. With ExxonMobil's advanced grease technology, you can protect all of these.

- Mobilgrease 33 can be used in up to 95 percent of Boeing commercial airframe grease application points.
- Mobilgrease 33 can be used in the majority of Airbus commercial airframe grease application points.
- In applications where Mobilgrease 33 is not appropriate, Mobilgrease 28 very well could be.
- To protect aircraft wheel bearings we recommend Mobil Aviation Grease SHC 100.

## Delivering results

ExxonMobil's researchers are always striving to make the aviation lubricants we offer better than they need to be. For this group of innovative thinkers, developing a product to meet an OEM's specification is often just a starting point. That is why they continually push the boundaries of lubricant technology. This passion and the need to exceed expectations is key to ExxonMobil creating results-oriented formulations.

To learn more about Mobilgrease 33, please contact your local ExxonMobil Aviation Lubricants representative, or visit [www.exxonmobil.com/lubes/aviation](http://www.exxonmobil.com/lubes/aviation).



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**Today, ExxonMobil's aviation lubricants are delivering results "on orbit" in the International Space Station and on Earth in the aircraft of many airlines and private pilots.**